

Alkalinity by Titration SM 18th /19th /20th Ed. 2320 B					Page 1 of 1
Facility Name: _____ VELAP ID _____					
Assessor Name: _____ Analyst Name: _____ Inspection Date _____					
Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
<i>Records Examined:</i> SOP Number/ Revision/ Date _____ Analyst: _____					
Sample ID: _____ Date of Sample Preparation: _____ Date of Analysis: _____					
Is 0.05N Na ₂ CO ₃ solution kept no longer than 1 week?	2320 B.3.a				
If the lab prepares 0.1N sulfuric acid or hydrochloric acid, is it standardized against 40 mL of 0.05N Na ₂ CO ₃ solution in 60 mL of water by titrating to a pH of about 5? <i>Alternatively, the lab may purchase 0.1000N solution.</i>	2320 B.3.b.				
If performing standardization of lab-prepared acid, is the 40 mL of 0.05N Na ₂ CO ₃ solution in 60 mL of water boiled after titration for 3 to 5 minutes while covered?	2320 B.3.b				
After boiling, is the 0.05N Na ₂ CO ₃ solution cooled and titrated to the pH inflection point or to an end-point pH selected from table 2320:I?	2320 B.3.b				
Is the normality of the solution calculated and used, or is the solution's normality adjusted to 0.1000N?	2320 B.3.b				
Is 0.02N sulfuric acid or hydrochloric acid also subjected to above steps in section 3.b, against 15 mL of 0.05N Na ₂ CO ₃ ? <i>Alternatively, the lab may purchase 0.0200N solutions.</i>	2320 B.3.c				
If color change is utilized, is 1 drop of 0.1M Na ₂ CO ₃ solution added when free residual chlorine is present?	2310 B.4.b				
If color change is utilized, is 0.2 mL or 5 drops of indicator solution added to sample which is then titrated to a persistent color change?	2310 B.4.b				
If using potentiometric titration curve, is a smooth curve showing one or more inflections obtained?	2310 B.4.c.2				
If titrating to preselected pH, is the endpoint within the range of the <i>suggested</i> endpoints from Table 2320:I (4.3-4.9)?	2320 B.4.b				
If titrating to preselected pH for alkalinities less than 20 mg/L, is 100 to 200 mL of sample used?	2320 B.4.d				
If titrating to preselected pH for alkalinities less than 20 mg/L, is 0.02N acid solution used?	2320 B.4.d				
Are duplicates analyzed for 10% of samples, at least one per batch?	2020				
Notes/ Comments:					